

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP PROGRAM  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

<b>PROJECT INFORMATION</b>	
<b>Project Title:</b> Geospatial Analysis of Temporal Trends of Nuisance Black Bears	<b>Project No. 10-704</b>
<b>Region/GMU:</b> Statewide	<b>HPC:</b> Statewide
<b>Project Type:</b> GIS analysis of nuisance bear occurrences	
<b>Project Description:</b> Summary: Conduct a geospatial analysis of Department data for the last ten years (2000-2010) of statewide nuisance bear complaints. Using GIS, locations of incidents can be geospatially represented, and used to display temporal trends around municipalities, townships and other populated areas. This data will provide meaningful information for use in preparation of a comprehensive management plan regarding nuisance bears.	
<b>Wildlife Species to Benefit:</b> Bear	
<b>Possible Funding Partners:</b> ASU/AZGFD	
<b>Implementation Schedule:</b> <b>Beginning:</b> Sept 2010 <b>Completed:</b> May 2011	<b>NEPA Compliance: (if applicable)</b> <b>Completed:</b> Yes ____ No ____ <b>Projected Completion Date:</b> May 2011
<b>PROJECT FUNDING</b>	
<b>SBG Funds Requested:</b> \$7,680 (Bear)	
<b>Cost Share Funds:</b> \$16,500 (ASU GIS lab)	
<b>Total Project Costs:</b> \$23,680	
<b>PARTICIPANT INFORMATION</b>	
<b>Applicant:</b> Brian Wakling (please print) <b>Telephone:</b> 623-236-7385	<b>Address:</b> 5000 West Carefree Highway Phoenix, AZ 85086
<b>AGFD Contact and Phone No.</b> Not Applicable (If applicant is not AGFD personnel)	
<b>Coordinated with:</b> Not Applicable	<b>Date:</b> 8-30-2010
<b>Applicant's signature:</b> Dan Sturla	<b>Date:</b> 08/31/2010

**SEND COMPLETED APPLICATIONS TO:  
Game Branch**

**AZ Game and Fish Dept.  
5000 W. Carefree Highway  
Phoenix, AZ 85086**

**WAS PROJECT PRESENTED TO THE LOCAL HPC?** YES \_\_\_\_\_ NO   X  

This is a statewide proposal

**HAS PROJECT BEEN SUBMITTED IN PREVIOUS YEARS? IF SO WAS IT FUNDED?**

No.

**Need Statement/ Problem Analysis** - The primary need is to geospatially identify trends in nuisance bear occurrences in urban areas. The state receives hundreds of calls annually regarding nuisance bears which often result in challenging public relation issues related to perceived controversial nature of human/bear interactions. These calls result in Wildlife Managers spending hundreds of hours responding to calls, capturing, releasing and/or destroying (15 bears were destroyed in 2009 mostly due to garbage issues) bears. Data (existing documented locations of human/bear interactions) and the GIS analysis of these accounts may provide for recommendations towards a comprehensive management plan that provides opportunities for proactive public relations and targeted bear harvest opportunity among hunters for bears in close proximity to urban areas. It is anticipated that targeted harvest near areas of high nuisance reporting will result in a reduction in the number of annual nuisance complaints.

**Project Objective** - The objective is to incorporate existing human/bear interaction data necessary to identify trends in nuisance bear occurrences and likely future geographic locations of human/bear interactions. Using geospatial analysis we plan to prepare recommendations for a comprehensive management plan regarding nuisance bears

**Project Strategies** - The AGFD, Game Branch, would like to hire an intern with training and experience in both wildlife management techniques and geospatial programming for data analysis to perform a GIS analysis for the period 2000-2010 of all occurrences of nuisance bear complaints. The funds from this HPC proposal would provide funds to the intern who would conduct the geospatial analysis. Analysis will be completed by May 2011.

**PROJECT LOCATION:**

Phoenix Game and Fish Office, Arizona State University GIS resources and intern's residence

**LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):** Not Applicable

**IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?**

Not Applicable

**HABITAT DESCRIPTION:**

Statewide: Ponderosa Pine, Pinion Juniper, Chaparral, Upper Sonoran Desert, Riparian, Madrean Evergreen,

etc.

**ITEMIZED USE OF FUNDS:**

Intern has agreed to perform the analysis at \$12/hr for an eight-month duration not to exceed 40 hours per pay period.

$\$12 \times 80\text{hr/month} = \$7,680$

**CostMatch:**

Arc Info software with Spatial Analyst purchased by ASU at a cost of \$16,500 (\$14,000 for the software, \$2,500 for the spatial analyst extension)

Project total \$23,680

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Not Applicable

**PROJECT MONITORING PLAN:**

Not Applicable

**PROJECT MAINTENANCE:**

Not Applicable

**PROJECT COMPLETION REPORT TO BE FILED BY:** Dan Sturla

**WATER DEVELOPMENT PROJECTS (see attached worksheet):**

Not Applicable

**TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet):**

Not Applicable